In the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Withdrawn) A catheter/dilator assembly comprising:
a catheter assembly comprising:
a catheter having a proximal catheter end, a distal catheter end, a lumen, and an outer catheter surface; and
a material-directing element, movable between radially expanded and radially collapsed states, secured to and extending past the distal catheter end, the material-directing element having an axial length when in the radially collapsed state;
a dilator comprising a hollow shaft within the lumen of the catheter, the hollow shaft having an outer shaft surface, a proximal shaft end, a distal shaft end and a recessed region in the outer shaft surface at the distal shaft end;
the recessed region and the material-directing element being generally aligned with one another;
a compression element covering the material-directing element to temporarily retain the material-directing element in a radially collapsed state; and
the recessed region sized for receipt of at least substantially the entire axial length of the material-directing element so to reduce the radial cross-sectional dimension of the assembly at the material-directing element.

2. (Withdrawn) The assembly according to claim 1 wherein the compression element comprises a sleeve slidable between a position covering the material-directing element and a position along the catheter between the proximal and distal catheter ends.

3. (Withdrawn) The assembly according to claim 1 wherein the material-directing element comprises a funnel element.

4. (Withdrawn) The assembly according to claim 3 wherein the funnel element comprises a braided funnel element.

5. (Withdrawn) The assembly according to claim 3 wherein the funnel element comprises an inflatable funnel element.

6. (Withdrawn) The assembly according to claim 3 wherein the funnel element comprises a malecot funnel element.

7. (Withdrawn) The assembly according to claim 1 wherein the compression element comprises a sleeve, the sleeve comprising distal and proximal portions, the distal portion covering the material-directing element and the proximal portion covering the distal catheter end.

8. (Withdrawn) The assembly according to claim 7 wherein at least a part of the distal portion of the sleeve is sufficiently weak so that when the sleeve is pulled in a proximal

direction to uncover the material-directing element, at least the part of the distal portion of the sleeve substantially expands as it passes over the distal catheter end.

9. (Withdrawn) The assembly according to claim 7 wherein the distal portion has an outside diameter and the proximal portion has an inside diameter.

10. (Withdrawn) The assembly according to claim 9 wherein the outside and inside diameters are about equal to one another.

11. (Withdrawn) The assembly according to claim 9 wherein the catheter has an outside catheter diameter substantially equal to the outside diameter of the distal portion of the sleeve.

12. (Withdrawn) The assembly according to claim 9 wherein the outside diameter of the distal portion is within 25% of the outside diameter of the catheter.

13. (Withdrawn) The assembly according to claim 9 wherein the outside diameter of the distal portion is within 15% of the outside diameter of the catheter.

14. (Withdrawn) The assembly according to claim 9 wherein the outside diameter of the distal portion is within 10% of the outside diameter of the catheter.

15. (Withdrawn) The assembly according to claim 9 wherein:
the outside and inside diameters are about equal to one another;
the catheter has an outside catheter diameter substantially equal to the outside diameter of the distal portion of the sleeve and the inside diameter of the proximal portion of the sleeve; and
at least a part of the distal portion of the sleeve is sufficiently weak so that when the sleeve is pulled in a proximal direction to uncover the material-directing element, at least the part of the distal portion of the sleeve substantially expands as it passes over the distal catheter end.

16. (Withdrawn) The assembly according to claim 15 wherein said part of the distal portion comprises a weakened region.

17. (Withdrawn) The assembly according to claim 16 wherein the weakened region comprises a material separation region within the distal portion of the sleeve.

18. (Withdrawn) The assembly according to claim 16 wherein the weakened region comprises a reduced thickness region in the distal portion of the sleeve.

19. (Withdrawn) The assembly according to claim 8 further comprising a spacer sleeve slidably mounted on the outer catheter surface between the sleeve and the proximal catheter end, the spacer sleeve sized to help properly locate the distal portion of the sleeve over the material-directing element and the proximal portion of the sleeve over the distal catheter end.

20. (Withdrawn) The assembly according to claim 19 wherein the spacer sleeve is configured to permit the sleeve to be pulled proximally to a material-directing element deployed position so that the sleeve no longer covers the material-directing element.

21. (Withdrawn) The assembly according to claim 19 wherein the spacer sleeve comprises a yieldable sleeve portion that yields when the sleeve is pulled proximally to the material-directing element deployed position.

22. (Withdrawn) The assembly according to claim 7 wherein the material-directing element comprises a funnel element.

23. (Withdrawn) A method for assembling a catheter/dilator assembly comprising:
selecting a catheter assembly comprising:
a catheter having a proximal catheter end, a distal catheter end, a lumen, and an outer catheter surface; and
a material-directing element, movable between radially expanded and radially collapsed states, secured to and extending past the distal catheter end, the material-directing element having an axial length when in the radially collapsed state;
inserting a hollow shaft of a dilator through the proximal catheter end and into the lumen of the catheter;
positioning a recess formed in the distal shaft end of the hollow shaft to underlie the material-directing element;
placing the material-directing element in the radially collapsed state; and
sliding a first sleeve in a proximal direction to a first position covering the distal shaft end of the dilator and over the material-directing element to maintain the material-directing element in the radially collapsed state.

24. (Withdrawn) The method according to claim 23 wherein the sliding step is carried out so that when the first sleeve is in the first position, a distal portion of the sleeve covers the funnel element and a proximal portion of the sleeve covers the distal catheter end.

25. (Withdrawn) The method according to claim 23 wherein the placing step comprises moving a second sleeve, slidably mounted on the outer catheter surface, in a distal direction to cover the funnel element.

26. (Withdrawn) The a method according to claim 25 wherein the sliding step causes the second sleeve to move in a proximal direction to a third position on the outer catheter surface.

27. (Withdrawn) A method for removing material from a tubular structure within a body comprising:
selecting a catheter/dilator assembly comprising:
a catheter assembly comprising:
a catheter having a proximal catheter end, a distal catheter end, a lumen, and an outer catheter surface; and
a material-directing element, movable between radially expanded and radially collapsed states, secured to and extending past the distal catheter end, the material-

directing element having an axial length when in the radially collapsed state;

a dilator comprising a hollow shaft within the lumen of the catheter, the hollow shaft having an outer shaft surface, a proximal shaft end, a distal shaft end and a recessed region in the outer shaft surface at or near the distal shaft end;

the recessed region and the material-directing element being generally aligned with one another;

a sleeve comprising distal and proximal portions, the distal portion covering the material-directing element to temporarily retain the material-directing element in a radially collapsed state, the proximal portion covering the distal catheter end; and

the recessed region sized for receipt of at least substantially the entire axial length of the material-directing element so to reduce the radial cross-sectional dimension of the assembly at the material-directing element;

locating the material-directing element at a first target location within a lumen of a tubular structure;

uncovering the material-directing element to place the material-directing element in a radially expanded state with the material-directing element contacting an inner surface of the tubular structure;

causing material within the lumen to move into the catheter/dilator assembly; and

removing the catheter/dilator assembly from the body.

28. (Withdrawn) The method according to claim 27 wherein the locating step comprises:

positioning a tip of a guide wire at a second target location within the lumen of the tubular structure, the guide wire having a proximal end; and

passing the proximal end of the guide wire into the distal shaft end of the dilator and at least partially through the dilator; and further comprising

removing the guide wire from the body.

29. (Withdrawn) The method according to claim 28 wherein the guide wire positioning step comprises:

puncturing the tubular structure to access the lumen with a hollow needle;

passing the guide wire through the hollow needle until the tip of the guide wire is at the second target location; and

removing the needle leaving the guide wire in place.

30. (Withdrawn) The method according to claim 28 further comprising:

selecting a guide wire having a radially expandable and contractible element at the tip of the guide wire; and

placing the radially expandable and contractible element in a radially expanded state when the tip of the guide wire is at the second target location.

31. (Withdrawn) The method according to claim 30 wherein the causing element comprises:

creating a suction force between the catheter and the hollow shaft of the dilator; and

moving the material-directing element and the radially expandable and contractible element toward one another.

32. (Withdrawn) The method according to claim 31 further comprising:

sliding the sleeve distally to cover the material-directing element to place the material-directing element in a radially collapsed state prior to the catheter/dilator assembly removing step; and

placing the radially expandable and contractible element in a radially contracted state prior to the guide wire removing step.

33. (Withdrawn) The method according to claim 27 wherein the causing element comprises creating a suction force between the catheter and the hollow shaft of the dilator.

34. (Withdrawn) The method according to claim 27 further comprising sliding the sleeve distally to cover the material-directing element to place the material-directing element in a radially collapsed state prior to the catheter/dilator assembly removing step.

35. (Withdrawn) The method according to claim 27 wherein the locating step is carried out with the tubular structure comprising a blood vessel.

36. (Withdrawn) The method according to claim 27 wherein the locating step is carried out with the tubular structure comprising a graft.

37. (Withdrawn) A method for removing material from a tubular structure within a body comprising:

selecting a catheter/dilator assembly assembled according to claim 23;

locating the material-directing element at a first target location within a lumen of a tubular structure;

uncovering the material-directing element to place the material-directing element in a radially expanded state with the material-directing element contacting an inner surface of the tubular structure;

causing material within the lumen to move into the catheter/dilator assembly; and

removing the catheter/dilator assembly from the body.

38. (Withdrawn) A dilator assembly comprising:

an elongate dilator comprising proximal and distal portions, a dilator tip at the distal portion, and a dilator lumen extending from the dilator tip to at least a first position along the dilator;

the dilator comprising a guide wire pathway extending from a second position at the proximal portion of the dilator to the first position;

an opening in the dilator at the first position connecting the guide wire pathway and the dilator lumen; and

a flexible guide wire extending along the guide wire pathway, through the opening, through the dilator lumen and out of the dilator tip.

39. (Withdrawn) The assembly according to claim 38 wherein the guide wire pathway comprises a groove formed in the dilator.

40. (Withdrawn) A rapid exchange dilator assembly comprising:

a catheter comprising a catheter lumen extending between a distal catheter end and a

proximal catheter end;

an elongate dilator, removably housed within the catheter lumen, comprising a proximal portion extending to a proximal dilator end, a distal portion extending to a dilator tip, and a dilator lumen extending from the dilator tip to at least a first position along the dilator;

the dilator comprising a guide wire pathway extending from the proximal portion of the dilator to the first position;

an opening in the dilator at the first position connecting the guide wire pathway and the dilator lumen;

a flexible guide wire, comprising a guide wire proximal end and a guide wire distal end, extending along the guide wire pathway, through the opening, through the dilator lumen and out of the dilator tip; and

the guide wire proximal end and the proximal dilator end are positioned proximally of the proximal catheter end, the guide wire distal end and the distal dilator end is positioned distally of the distal catheter end;

whereby when the assembly is at a desired position within a body, the dilator can be removed leaving the catheter and guide wire in position.

41. (Withdrawn) The assembly according to claim 40 wherein the catheter comprises:

a material-directing element, movable between radially expanded and radially collapsed states, secured to the distal catheter end.

42. (Withdrawn) The assembly according to claim 41 wherein the material-directing element comprises an expandable braid element.

43. (Withdrawn) The assembly according to claim 41 wherein the material-directing element comprises an expandable braid funnel element.

44. (Withdrawn) The assembly according to claim 41 wherein the material-directing element comprises an inflatable element.

45. (Withdrawn) The assembly according to claim 41 wherein the material-directing element comprises an inflatable funnel element.

46. (Withdrawn) The assembly according to claim 41 wherein the material-directing element comprises an expandable malecot element.

47. (Withdrawn) The assembly according to claim 41 wherein the material-directing element comprises an expandable malecot funnel element.

48. (Withdrawn) The assembly according to claim 40 wherein the catheter comprises:

outer and inner catheters, the inner catheter slidably mounted within the outer catheter, the outer and inner catheters comprising distal outer and inner catheter ends; and

a material-directing element, movable between radially expanded and radially collapsed states, secured to the distal outer and inner catheter ends.

49. (Withdrawn) The assembly according to claim 48 wherein the material-directing element comprises an expandable braid funnel element.

50. (Withdrawn) A method for providing access to a target site within a tubular structure of a patient, comprising:

positioning a distal catheter end of a first, guide catheter at a first position within a tubular structure of a patient;

passing a rapid exchange dilator assembly into the first catheter, the rapid exchange dilator assembly comprising a second catheter, the second catheter comprising a removable dilator, a guide wire and a second catheter lumen, the second catheter lumen housing the dilator and the guide wire;

removing the dilator from the patient leaving the second catheter and the guide wire within the patient; and

passing an operational device through the second catheter for performing a procedure at the target site.

51. (Withdrawn) The method according to claim 50 wherein the positioning step is carried out by:

placing a distal end of a second guide wire at a second position within the tubular structure;

passing the first catheter over the second guide wire; and

removing the second guide wire from the patient while leaving the first catheter within the patient.

52. (Withdrawn) The method according to claim 50 further comprising radially expanding a material-directing element, mounted to the second catheter, to a radially expanded state.

53. (Withdrawn) The method according to claim 50 further comprising radially expanding a material-directing funnel element, mounted to an extending from the second catheter, to a radially expanded state with the funnel element contacting an inner wall of the tubular structure.

54. (Withdrawn) The method according to claim 50 wherein the operational device passing step comprises passing a stent through the second catheter, and further comprising placing the stent at the target site.

55. (Withdrawn) The method according to claim 50 wherein the operational device passing step comprises passing a balloon catheter, comprising a balloon, through the second catheter, and further comprising expanding the balloon at the target site.

56. (Withdrawn) A method for providing access to a target site within a tubular structure of a patient, comprising:

selecting a rapid exchange dilator assembly comprising:

a catheter comprising a catheter lumen, extending between a distal catheter end and a proximal catheter end, and a material-directing element, movable between radially expanded and radially collapsed states, secured to the distal catheter end;

an elongate dilator, removably housed within the catheter lumen, comprising a proximal portion extending to a proximal dilator end, a distal portion extending to a dilator tip, and a dilator lumen extending from the dilator tip to at least a first position along the dilator;

the dilator comprising a guide wire pathway extending from the proximal portion of the dilator to the first position;

an opening in the dilator at the first position connecting the guide wire pathway and the dilator lumen;

a flexible guide wire, comprising a guide wire proximal end and a guide wire distal end, extending along the guide wire pathway, through the opening, through the dilator lumen and out of the dilator tip; and

the guide wire proximal end and the proximal dilator end position proximally of the proximal catheter end, the guide wire distal end and the distal dilator end position the distally of the distal catheter end;

positioning a distal catheter end of a guide catheter at a second position within a tubular structure of a patient;

passing the rapid exchange dilator assembly into the guide catheter;

removing the dilator from the patient leaving the catheter and the guide wire of the rapid exchange dilator assembly within the patient; and

passing an operational device through the catheter of the rapid exchange dilator assembly for performing a procedure at the target site.

57. (Withdrawn) The method according to claim 56 wherein the positioning step is carried out by:

placing a distal end of a second guide wire at a second position within the tubular structure;

passing the guide catheter over the second guide wire; and

removing the second guide wire from the patient while leaving the guide catheter within the patient.

58. (Withdrawn) A funnel catheter having a distal funnel catheter end, the funnel catheter comprising:

an outer tube;

an inner tube slidably located within the outer tube;

a tubular sleeve having first and second ends and movable between a radially expanded, use state and a radially contracted, deployment state;

the first end of the sleeve being secured to a distal end of the outer tube;

the second end of the sleeve being secured to a distal end of the inner tube; and

the sleeve having a movable, generally U-shaped direction-reversing region so that when the first and second ends move relative to one another the position of the direction-reversing region moves relative to the distal ends of the inner and outer tubes, the direction-reversing region constituting the distal funnel catheter end.

59. (Withdrawn) The funnel catheter according to claim 58 wherein the tubular sleeve comprises a braided material.

60. (Withdrawn) The funnel catheter according to claim 59 wherein the tubular sleeve comprises a fluid passage-inhibiting film in contact with the braided material.

61. (Withdrawn) The funnel catheter according to claim 60 wherein the film impregnates the braided material.

62. (Withdrawn) The funnel catheter according to claim 60 wherein the film covers the braided material.

63. (Withdrawn) The funnel catheter according to claim 60 wherein the film is an elastic material.

64. (Withdrawn) The funnel catheter according to claim 58 wherein the sleeve defines a distally opening funnel when the first and second distal ends are generally aligned.

65. (Withdrawn) The funnel catheter according to claim 64 wherein the funnel has a generally cylindrical distal portion and a generally conical proximal portion.

66. (Withdrawn) The funnel catheter according to claim 58 wherein the tubular sleeve is a resilient tubular sleeve and the radially expanded, use state is a relaxed state.

67. (Withdrawn) A funnel catheter comprising:

an outer tube having a first distal end and an inner surface, the inner surface defining an outer lumen;

an inner tube, slidably located within the outer lumen, having a second distal end and an outer surface positioned opposite the inner surface;

a tubular sleeve having first and second ends and movable between a radially expanded, use state and a radially contracted, deployment state;

the first end of the sleeve being secured to the first distal end;

the second end of the sleeve being secured to the second distal end so to extend from other than the outer surface; and

the sleeve having a movable, generally U-shaped direction-reversing region when the first and second distal ends move relative to one another with the position of the direction-reversing region moving relative to the first and second distal ends.

68. (Withdrawn) A method for deploying a material-directing element within a tubular structure within a patient comprising:

selecting a funnel catheter having a distal funnel catheter end, the funnel catheter comprising:

an outer tube;

an inner tube slidably located within the outer tube;

a tubular sleeve having first and second ends and movable between a radially expanded, use state and a radially contracted, deployment state;

the first end of the sleeve being secured to a distal end of the outer tube;

the second end of the sleeve being secured to a distal end of the inner tube; and

the sleeve having a movable, generally U-shaped direction-reversing region, the direction-reversing region constituting the distal funnel catheter end;

deploying the funnel catheter with the sleeve in a reduced diameter, deployment state and with the sleeve being generally parallel to the outer and inner tubes;

positioning the direction-reversing region at a chosen position within a tubular structure within a patient; and

moving the distal ends of the inner and outer tubes relative to one another:

causing the position of the direction-reversing region to move relative to the first and second ends;

causing the sleeve to form a distally-opening material-directing funnel, the funnel having a distal funnel portion and a proximal funnel portion; and

causing the distal funnel portion to contact the inner wall of the tubular structure.

69. (Withdrawn) The method according to claim 68 wherein the distal ends moving step causes the sleeve to form a funnel having a generally cylindrical distal portion and a generally conical proximal portion.

70. (Withdrawn) A method for making a funnel catheter comprising:

winding material onto a mandril to create a tubular braided sleeve having a proximal portion, a distal portion, a proximal end, and a distal end;

removing the tubular braided sleeve from the mandril; and

securing the proximal end to a first position on an outer tube and securing a distal end to a second position on an inner tube to create a funnel catheter.

71. (Withdrawn) The method according to claim 70 further comprising selecting a mandril comprising a radially expanding proximal taper region connected to a radially contracting distal taper region, the distal taper region having a faster taper than the proximal taper region.

72. (Withdrawn) The method according to claim 71 wherein the selecting step is carried out to select a mandril have a constant-diameter central region connecting the proximal and distal taper region.

73. (Withdrawn) The method according to claim 70 wherein the winding step is carried out so that the pic count, that is the material crossing count per unit length, is generally constant along the proximal and distal portions.

74. (Withdrawn) The method according to claim 70 further comprising aiding the creation of a distally opening funnel when the inner and outer tubes are moved from a first orientation, with the sleeve in a generally tubular state and with the first and second positions separated by a first distance, to a second orientation, with the sleeve in a generally funnel state and with first and second positions separated by a second distance, the second distance being less than the first distance.

75. (Withdrawn) The method according to claim 74 wherein the aiding step comprises applying a radial expansion restriction material to the proximal portion of the sleeve.

76. (Withdrawn) The method according to claim 74 wherein the aiding step comprises applying a radial expansion restriction material to the proximal and distal portions of the sleeve, the radial expansion restriction material at the proximal portion being more stretch-resistant than the radial expansion restriction material at the distal portion.

77. (Withdrawn) The method according to claim 74 wherein the aiding step comprises varying the pic count, that is the material crossing count per unit length, along the sleeve.

78. (Withdrawn) The method according to claim 77 wherein the pic count varying step comprises creating a lesser pic count at the distal portion of the sleeve than the pic count at the proximal portion of the sleeve.

79. (Withdrawn) The method according to claim 78 wherein the lesser pic count creating step is carried out by removing selected strands of the winding material at the distal portion of the sleeve.

80. (Withdrawn) The method according to claim 77 wherein the pic count varying step comprises creating a greater pic count at the distal portion of the sleeve than at the proximal portion of the sleeve.

81. (Withdrawn) The method according to claim 74 wherein the aiding step comprises the increasing a resistance to radial expansion at the proximal end of the sleeve.

82. (Withdrawn) The method according to claim 70 wherein the material winding step comprises winding multiple strands of the material onto the mandril.

83. (Withdrawn) The method according to claim 70 wherein the material winding step comprises winding the material in the form of ribbons of material onto the mandril.

84. (Currently amended) A vascular balloon catheter, for use within a blood vessel, comprising:

a shaft having an end, a main lumen and an inflation lumen;

an annular vascular balloon mounted to the end of the shaft and fluidly coupled to the inflation lumen for movement between a radially contracted, uninflated state and a radially expanded, blood vessel engaging, inflated state;

the balloon defining an open region opening into the main lumen when in the inflated state; and

the balloon extending distally past the end of the shaft when in the inflated state.

85. (Original) The catheter according to claim 84 wherein the open region is a funnel shaped open region.

86. (Original) The catheter according to claim 84 wherein the main lumen at the end

of the shaft has a cross-sectional area and the open region has an average cross-sectional area greater than said cross-sectional area of the main lumen.

87. (Withdrawn) A method for securing a tubular braid to a tube comprising:
bringing a first end of a tubular braid into engagement with an end portion of a tube, said end portion comprising a temporarily softenable tube material;
softening the temporarily softenable tube material; and
merging the end portion of the tube and the first end of the tubular braid into one another to create a tube material/tubular braid matrix.

88. (Withdrawn) The method according to claim 87 wherein the bringing step is carried out by inserting a chosen one of the first end and the end portion into the other of the first end and the end portion.

89. (Withdrawn) The method according to claim 88 wherein the softening step comprises heating the end portion of the tube.

90. (Withdrawn) The method according to claim 89 wherein the heating step comprises placing the end portion within a tool.

91. (Withdrawn) The method according to claim 89 wherein the heating step comprises placing the end portion within a heatable tool.

92. (Withdrawn) The method according to claim 89 wherein the heating step comprises placing the end portion within a tool heatable by RF energy.

93. (Withdrawn) The method according to claim 89 wherein the heating step comprises placing the end portion within a tool made of a material having a Curie temperature at a desired operational temperature to facilitate maintaining the tool at the desired operational temperature.

94. (Withdrawn) The method according to claim 90 where the merging step is carried with the end portion and the first end within an open region of the tool.

95. (Withdrawn) The method according to claim 94 wherein the merging step comprises squeezing the end portion and the first end between the tool and a mandril, the mandril located within the end portion and the first end.

96. (Withdrawn) A method for controlling the shape of a radially expandable and contractible tubular braid device comprising:
choosing a radially expanded shape for the braid device when the braid device is in a radially expanded state, the radially expanded shape having a length and different cross-sectional dimensions at selected positions along the length;
selectively applying a material to at least some of the selected positions along the braid device; and

adjusting the stretch resistance of the material according to the selected positions;

whereby the different stretch resistances at the selected positions cause the braid device to assume the chosen radially expanded shape when the braid device is in the radially expanded state.

97. (Withdrawn) The method according to claim 96 wherein the selectively applying step is carried out using a generally elastic material.

98. (Withdrawn) The method according to claim 96 wherein the selectively applying step is carried out using a generally inelastic material.

99. (Withdrawn) The method according to claim 96 wherein the selectively applying step is carried out by selectively impregnating the braid device.

100. (Withdrawn) The method according to claim 96 wherein the choosing step comprises choosing a funnel shape as the radially expanded shape.

101. (Withdrawn) The method according to claim 100 wherein the adjusting step comprises decreasing the stretch resistance of the material from a first end towards a second end of the braid device.

102. (Withdrawn) The method according to claim 96 wherein the selectively applying step applies the material to the braid device along a portion of the length of the braid device.

103. (Withdrawn) The method according to claim 96 wherein the adjusting step is carried out by changing the thickness of the material according to the desired stretch resistance at the selected positions.

104. (Withdrawn) The method according to claim 96 wherein the adjusting step comprises selecting an material having different stretch resistance characteristics.

105. (Withdrawn) The method according to claim 96 wherein the adjusting step comprises selecting different materials having different stretch resistance characteristics.

106. (Withdrawn) A method for imparting a shape to a thermoplastic membrane comprising:

surrounding at least a portion of a radially expandable device with a thermoplastic membrane;

radially expanding the radially expandable device to a chosen expanded configuration thereby reshaping the thermoplastic membrane to assume an expanded state corresponding to the chosen expanded configuration; and

imparting a set to the thermoplastic membrane while in the expanded state.

107. (Withdrawn) The method according to claim 106 wherein the surrounding step is carried out using a generally elastic thermoplastic membrane.

108. (Withdrawn) The method according to claim 106 wherein the surrounding step is

carried out using a generally inelastic thermoplastic membrane.

109. (Withdrawn) The method according to claim 106 further comprising preventing at least a portion of the thermoplastic membrane from adhering to the radially expandable device.

110. (Withdrawn) The method according to claim 106 wherein the surrounding step is carried out by sliding a tubular thermoplastic membrane over the radially expandable device.

111. (Withdrawn) The method according to claim 106 wherein the surrounding step is carried out by coating the radially expandable device with a thermoplastic liquid material to create the thermoplastic membrane.

112. (Withdrawn) The method according to claim 106 further comprising selecting a tubular braid radially expandable device.

113. (Withdrawn) The method according to claim 106 wherein the set-imparting step comprises heating and cooling the thermoplastic membrane.

114. (Withdrawn) The method according to claim 106 wherein the set-imparting step comprises heating and cooling the thermoplastic membrane a plurality of times.

115. (Withdrawn) An anastomotic medical device comprising:
a tube having first and second ends and a lumen extending therebetween;
an anchor member at the first end for securing the first end to a first tubular structure of a patient, the first tubular structure having a first open interior, with the first open interior opening into the lumen.

116. (Withdrawn) The medical device according to claim 115 further comprising a second anchor member at the second end for securing the second end to a second tubular structure of a patient, the second tubular structure having a second open interior, with the second open interior opening into the lumen.

117. (Withdrawn) The medical device according to claim 115 wherein the anchor member comprises a tubular braid element.

118. (Withdrawn) The medical device according to claim 115 wherein the anchor member comprises a radially expandable tubular braid element having tubular structure piercing elements.

119. (Withdrawn) The medical device according to claim 118 wherein the piercing elements comprise hooks.

120. (Withdrawn) The medical device according to claim 115 wherein the anchor member comprises an annular inflatable element sealingly engageable with an opening in the first tubular structure.

121. (Withdrawn) A medical device according to claim 115 wherein the anchor member comprises a malecot device.

122. (Withdrawn) An anastomotic medical assembly comprising:

a first anastomotic medical device comprising:

a first tube having first and second ends and a first lumen extending therebetween; and

a first anchor member at the first end of the first tube for securing the first end of the first tube to a first tubular structure of a patient, the first tubular structure having a first open interior, with the first open interior opening into the first lumen;

a second anastomotic medical device comprising:

a second tube having first and second ends and a first lumen extending therebetween; and

a second anchor member at the first end of the second tube for securing the first end of the second tube to a second tubular structure of a patient, the second tubular structure having a second open interior, with the second open interior opening into the second lumen; and

the second ends of the first and second tubes connected to one another to create a fluid path between the first and second anchor members, whereby the first and second open interiors of the first and second tubular structures of the patient may be fluidly connected.

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